

REMARKS

Claims 1-7 remain pending in the application and stand rejected. Applicant respectfully traverses the rejections of claims 1-7 for the reasons set forth below, and respectfully requests reconsideration.

Information Disclosure Statement

As an initial matter, Applicant notes that an Information Disclosure Statement was filed electronically on April 7, 2004. A Supplemental Information Disclosure Statement was subsequently mailed June 18, 2004, and was received in the U.S. Patent and Trademark Office on June 18, 2004. The Supplemental Information Disclosure Statement was filed in accordance with 37 C.F.R. §1.56, to apprise the Office of references cited by a foreign patent office in a counterpart application. Applicant notes that an initialed and signed copy of only the April 7, 2004 Information Disclosure Statement was received in this Office Action. Accordingly, Applicant respectfully requests that a signed and initialed copy of the June 18, 2004 Supplemental Information Disclosure Statement be provided in the next communication from the Office.

Objections to the Drawings

The drawings were objected to for various informalities related to reference numerals 80 and 82. Proposed corrections to the drawings have been submitted on even date herewith for the Examiner's review and approval. Pending the Examiner's approval, Applicant respectfully requests entry of the corrected drawings.

The drawings were also objected to with respect to reference numerals 36, 38 and 40. Applicant respectfully traverses these objections. Specifically, Applicant notes that reference numerals 36 and 38 can be found in FIG. 1 of the drawings. Reference numeral 40 can be found in FIGS. 2 and 2A of the drawings, and is associated with a pressure gauge that is schematically represented in those figures. Pending the Examiner's approval of the proposed drawing corrections, Applicant asserts that the drawings meet all requirements and respectfully requests that the objections to the drawings be withdrawn.

Claims Rejected Under 35 U.S.C. §103

Claims 1-7 stand rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 5,597,008 to Overdiek et al. Claims 1, 4 and 6 are the only independent claims in this rejected group. Claim 1 is directed to an apparatus for testing hydraulic pressure relief valves, comprising:

a body constructed to withstand high pressure;

a cavity formed into said body and configured to completely enclose a pressure relief valve therein, said cavity including a valve seat and an aperture through which the pressure relief valve may be received into said cavity to contact said valve seat;

a pressure gauge in communication with said cavity;

at least one fluid inlet communicating with said cavity;

a fluid outlet in communication with said cavity; and

a closure couplable to said body, proximate said aperture to sealably secure said pressure relief valve within said cavity.

The Examiner admits that Overdiek '008 does not teach "a cavity formed into said body and configured to completely enclose a pressure relief valve therein," or "a closure couplable to said body," as required by claim 1 (Office Action at page 3). The Examiner asserts, however, that these elements would have been obvious in view of Overdiek '008. Applicant respectfully traverses.

Overdiek '008 discloses a pressure relief valve testing and adjustment system wherein a pressure-limiting valve 10 is placed into an open-ended housing 60 and is forced by a pressure device 88 into sealing engagement with the bottom of the housing. Test oil flows into the valve 10 through an oil inlet 64, but does not enter the bore 68 of the housing. (Overdiek '008 at col. 11, lines 13-16.) The biasing force of spring 20 determines the pressure at which valve 10 opens to permit bypass flow, and is adjusted by positioning the valve seat 26 and opening 24 to preload spring 20 (Overdiek '008 at col. 9, lines 41-52). To determine the appropriate preload force, pressure device 88 is actuated by a motor 89 under the direction of controller 86 to gradually adjust the amount of insertion of valve seat 26 into housing 12 until the desired preload on spring 20 is attained.

The pressure device 88 of Overdiek '008, therefore, cannot be considered to be a closure for the adjusting apparatus depicted in FIG. 7, because it must be movable relative to the housing 60 to permit adjustment of the valve seat position when setting the valve to a desired actuation pressure. Applicant notes that there is no motivation to completely enclose valve 10 within bore 68, because pressurized oil does not flow into the bore during testing of the valves (see Overdiek '008 at col. 11, lines 13-16).

Because no oil flows into the bore, there is no need for the cavity to completely enclose the pressure relief valve, or for the closure to sealably secure the pressure relief valve within the cavity, as required by claim 1. Moreover, there is no motivation to make the testing apparatus of Overdiek '008 with "a body constructed to withstand high pressure," as recited in claim 1. Specifically, since the bore is not exposed to pressurized oil, there is no need to construct the housing 60 to withstand high pressures. For at least these reasons, Applicant respectfully requests that the rejection of claim 1 over Overdiek '008 be withdrawn.

Claims 2 and 3 each depend from independent claim 1, and are therefore in condition for allowance for at least the reasons stated above for claim 1. Accordingly, Applicant respectfully requests that the rejections of claims 2 and 3 be withdrawn.

Claim 4 is directed to a method of testing a hydraulic pressure relief valve, and claim 6 is directed to a method of tuning a hydraulic pressure relief valve. Applicant respectfully asserts that Overdiek '008 does not teach or suggest each and every element of claims 4 and 6. Specifically, Overdiek '008 does not teach or suggest "securing a closure to the test apparatus to seal the valve within the cavity," and "coupling the cavity to a source of high pressure fluid flow," as recited in claims 4 and 6.

As discussed above with respect to claim 1, Overdiek '008 is directed to a pressure relief valve testing and adjustment system comprising an open-ended housing 60 into which a valve 10 is placed. The valve is not covered with a closure or completely enclosed within bore 68, because pressure device 88 must be able to contact the valve 10 to adjust the amount of insertion of valve seat 26 into valve housing

12 to determine the amount of preload required for spring 20. As the valve is being tested, pressurized oil flows into the valve 10 through inlet 64, and no pressurized oil flows into the bore 68 (Overdiek '008 at col. 11, lines 13-16). Accordingly, Overdiek '008 does not teach or suggest securing a closure to seal a valve within a cavity or coupling the cavity to a source of high pressure fluid flow, as required by claims 4 and 6. For at least these reasons, Applicant respectfully requests that the rejections of claims 4 and 6 be withdrawn.

Claim 5 depends from independent claim 4, and claim 7 depends from independent claim 6. Claims 5 and 7 are therefore in condition for allowance for at least the reasons stated above for claims 4 and 6, and Applicant respectfully requests that the rejections of claims 5 and 7 be withdrawn.

Conclusion

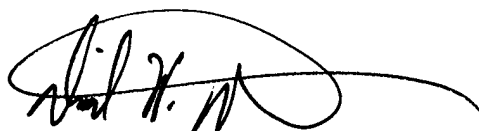
In view of the foregoing amendments to the claims and the remarks set forth herein, Applicant respectfully believes this case is in condition for allowance and respectfully requests allowance of the pending claims. If the Examiner believes any issue requires further discussion, the Examiner is respectfully asked to telephone the undersigned attorney so that the matter may be promptly resolved. The Examiner's prompt attention to this matter is appreciated.

Applicant is of the opinion that no additional fee is due as a result of this amendment. If any charges or credits are necessary to complete this communication, please apply them to Deposit Account No. 23-3000.

Application No. 10/736,482
Amendment dated November 11, 2005
Reply to Office Action of August 11, 2005

Respectfully submitted,

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Annotated Sheet Showing Changes

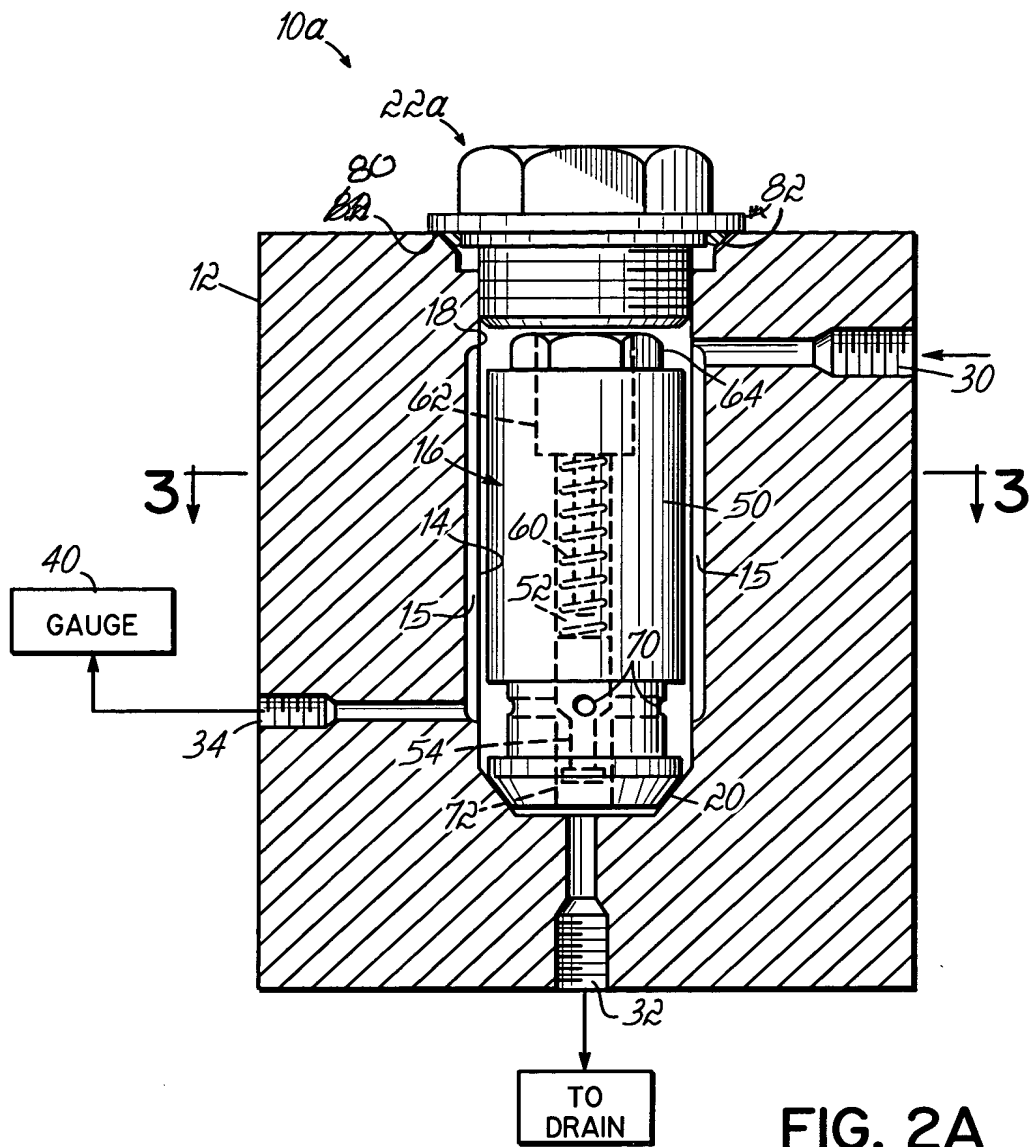


FIG. 2A

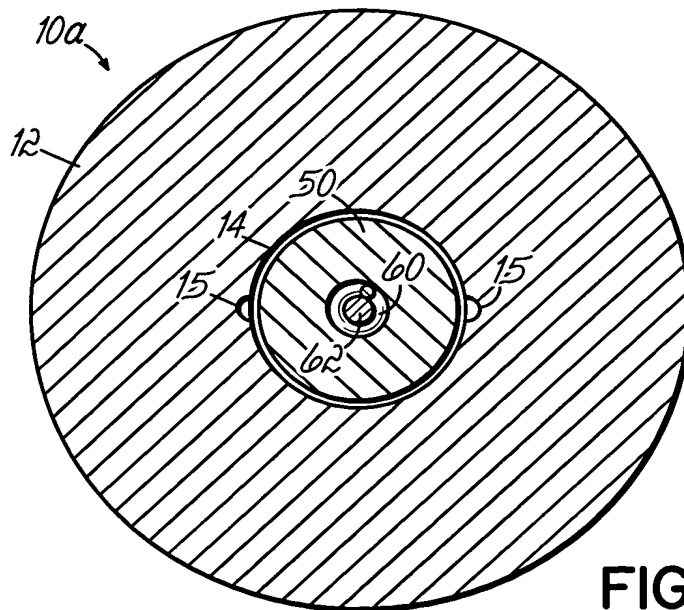


FIG. 3